Toxicology Report on
Captain Ricard J. Smith

Three (3) pages total including this cover

CONFIDENTIAL - NOT FOR PUBLIC RELEASE

U.S Department
of Transportation
Federal Aviation
Administration

Mike Monroney
Aeronautical Center

P.O. Box 25082
Oklahoma City, OK 73125

Wednesday, October 29, 2003

National Transportation Safety Board
490 L'Enfant Plaza East
Washington, DC 20594

ACCIDENT # 0309 **INDIVIDUAL#:** 001 **NAME:** SMITH, RICHARD J. **MODE:** MARINE

DATE OF ACCIDENT 10/15/2003 **DATE RECEIVED** 10/21/2003 **PUTREFACTION:** No

N # **NTSB #** **CAMI REF #** 200300309001

LOCATION OF ACCIDENT STATEN ISLAND, NY

SPECIMENS Blood, Serum, Urine

FINAL FORENSIC TOXICOLOGY NON-FATAL ACCIDENT REPORT

CARBON MONOXIDE: The carboxyhemoglobin (COHb) saturation is determined by spectrophotometry with a 10% cut off. Where possible, positive COHb values are confirmed by GC/TCD.

>> NOT PERFORMED

CYANIDE: The presence of cyanide is screened by Conway Diffusion. Positive cyanides are quantitated using spectrophotometry. The limit of quantitation of cyanide is 0.25 ug/mL. Normal blood cyanide concentrations are less than 0.15 ug/mL, while lethal concentrations are greater than 3ug/mL.

>> NOT PERFORMED

VOLATILES: The volatile concentrations are determined by headspace gas chromatography at a cut off of 10 mg/dL. Where possible, positive ethanol values are confirmed by Radiative Energy Attenuation.

>> NO ETHANOL detected in Urine

DRUGS: Immunoassay and chromatography are used to screen for legal and illegal drugs which include: amphetamine (0.010), opiates (0.010), marihuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), antihistamines (0.020), meprobamate (0.100), methaqualone (0.100), and nicotine (0.050). The values in () are the threshold values in ug/mL used to report positive results. Values below this concentration are normally reported as not detected. GC/Mass Spec, HPLC/Mass Spec, or GC/FTIR, is used to confirm most positive results.

>> 0.76 (ug/mL, ug/g) TRAMADOL detected in Serum
>> TRAMADOL present in Urine
>> DIPHENHYDRAMINE present in Urine
>> DIPHENHYDRAMINE NOT detected in Serum

Dennis Canfield, PhD.
Manager, Bioaeronautical
Sciences Research Laboratory

Dennis V. Canfield Date: 2003.10.29 14:29:21 -06'00'

CONFIDENTIAL - NOT FOR PUBLIC RELEASE

U.S Department
of Transportation
Federal Aviation
Administration

Mike Monroney
Aeronautical Center

P.O. Box 25082
Oklahoma City, OK 73125

Wednesday, October 29, 2003

National Transportation Safety Board
490 L'Enfant Plaza East
Washington, DC 20594

ACCIDENT # 0309 **INDIVIDUAL#:** 001 **NAME:** SMITH, RICHARD J. **MODE:** MARINE

DATE OF ACCIDENT 10/15/2003 **DATE RECEIVED** 10/21/2003 **PUTREFACTION:** No

N # **NTSB #** **CAMI REF #** 200300309001

LOCATION OF ACCIDENT STATEN ISLAND, NY

SPECIMENS Blood, Serum, Urine

CLINICAL REPORT

CLINICAL: Vitreous and Urine are tested for the presence of glucose with reagent strips and by enzymatic spectrophotometric analysis. Postmortem vitreous glucose levels above 125 mg/dL are considered abnormal and postmortem urine levels above 100 mg/dL are considered abnormal. Hemoglobin A1C is analyzed using a latex immunoagglutination inhibition methodology. Hemoglobin A1C blood levels above 6% are considered abnormal. Urine specimens are defined as "dilute" if the creatinine concentration is < 20 mg/dL and the specific gravity is < 1.003.

>> 198 (mg/dl) GLUCOSE detected in Urine

DIAGNOSTIC INFORMATION FOR ELEVATED GLUCOSE LEVELS
Elevated postmortem vitreous glucose levels reported by the Forensic Toxicology and Accident Research Laboratory are considered hyperglycemic conditions which may or may not have been a factor in the accident. An abnormally high postmortem vitreous glucose level could have been caused by diabetes mellitus or several other medical conditions. Elevated glucose levels can also be caused by emergency medical treatment, strenuous exercise, strong emotions, shock and burns. Elevated postmortem urine glucose levels could be caused by diabetes mellitus or several other medical conditions, which may or may not have been a factor in the accident. It is impossible at the present time to identify hypoglycemic conditions in postmortem specimens. Glucose levels in postmortem samples drop rapidly and frequently drop to zero.

Dennis V. Canfield Date: 2003.10.29 14:29:50 -06'00'

Dennis Canfield, PhD.
Manager, Bioaeronautical
Sciences Research Laboratory